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FEBRUARY 11, 1924

Issued Weekly

PRICE 10 CENTS



The eyes of the fleet: U. S. naval scouting seaplanes putting to sea

VOLUME
XVI

SPECIAL FEATURES

NUMBER
6

AN AMERICAN LIGHT PLANE ENGINE
THREE NEW GERMAN COMMERCIAL PLANES
BRITISH METHODS OF AIRCRAFT PRODUCTION
THE AERONAUTICAL CHAMBER OF COMMERCE IN 1923

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and for an opinion as to the legal status of the Manufacture Aircraft Corporation, and particularly whether the Cross Licensing Agreement was in consideration of the Anti-Trust Statutes, and the Attorney General rendered an opinion that it was not in violation of the Anti-Trust Statutes.

"That Representative Nelson also objects because the contracts were let to corporations against which the War Department had claims for large sums of money, due to fraud in connection with war contracts. As a matter of fact, no charges of fraud are made in these contracts. The entire settlements were made after the war with the various contractors, and they agreed to keep their books open for six years after the war, in order that a thorough audit might be made and definite settlements agreed upon. These claims are based on the goods and on money owed the contractors have agreed to settlement. By far the largest amount of the claims by the Department against the contractors is due to a legal question which has arisen since the tentative settlements were made, namely, whether the bonus paid to the contractors was legal. This question is still pending and it involves large sums of money.

"That the Senators understand also that Representative Nelson referred particularly to the Virgin Aircraft case, and to letters which were written to him by Mr. Daynes. In this case, the decision of the department was unfavorable against the claimants, and the case was referred to the Department of Justice for action.

"That all of the war-time contracts for aircraft and accessories material were carefully scrutinized in the Office of the Chief of Air Service. This was by direct order of the Secretary of War. The primary object of this examination was to determine whether or not any of the contractors had been overpaid.

"This preliminary examination indicated that there were thirty-six of these contracts which should be examined more closely and they have been carefully audited. In all of these cases the audit disclosed that overpayments had, apparently been made to the contractors. The settlements upon which these payments were based were made as soon as possible after the Armistice. There was the natural desire to have these contractors receive work on a post-war basis. Thus they could not do until some settlement with the United States was effected. The settlements were regarded as more or less tentative, the estimate having provided that the loans of the contractors would be open to annual Government scrutiny for some years after war ceased.

The following shows the condition of the audit of these contracts as of Jan. 25:

Actual Amount refunded by contractors	\$1,530,422.33
Total amount involved in sums forwarded to the Department of Justice for audit to recover	\$2,581,680.47
Demands made on contractors in refund by the amount of	\$3,872,881.11*

The Air Liner of Tomorrow in the Making



Close-up view of the Fairman type F3X transport plane (four 180 hp. Hispano engines, Lamblin streamlined radiators on the inner bracing struts.)

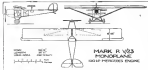
Three New German Commercial Airplanes

Small-Capacity Passenger Carriers Have Interesting Features

Three interesting new commercial planes were recently produced by the German aircraft industry. Location of the new small capacity aircraft is to give the chief features and an outline of these ships, but it will be noted from what is pointed out that they all appear to embody a high power efficiency. In it is to say, most of these ships carry a very large power load per horsepower. This is but a natural consequence of the restrictions of the Versailles Treaty, which limits the size and horsepower of the airplanes the Germans are authorized to build and no commercial German aircraft designers to get the maximum out of a given aerodynamic design.

The Mark Four-Seater

The Mark IV commercial four-seater built by the Reichswerke AG. of Berlin is a point as new. The ship, a steel-tubed an airplane of the Loening type, carries three passengers, a pilot, 310 lb. of baggage and fuel for 4 hr. with a 180 hp. Mercedes 8 cyl. engine at a maximum speed of 85 mi./hr. The



Outline drawings of the Mark IV four-seater

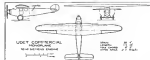
ship, with full load, is 2030 ft. in 5 min. The other characteristics of the machine are as follows: Span 45 ft. 9 in., overall length 25 ft. 12 in., wheel 6 ft. 9 in., wing area 290 sq. ft., weight empty 1700 lb., weight loaded 2805 lb. The RV23 is a general monoplaner, that is the wing is slightly raised over the fuselage so as to afford good vision to the pilot. The wing is built in two halves, joined on a steel tube ribbing. The construction comprises wooden spars and ribs, fabric covering. The fuselage, comprising a flat rectangular box, is built of welded steel tubing, cross-braced with wire. Forward it is covered with aluminum, aft with fabric. The cabin, which has little head room, places two persons side by side, while the third passenger is placed next to the pilot in an open cockpit aft of the cabin.

The Udet Three-Seater

Another interesting "small transport" plane is the Udet commercial three-seater fitted with a 70 hp. Hispano radial air-cooled engine. This centerline monoplaner has an unusually short line, all external bracing being eliminated. Like the RV23, which the Udet resembles by the way, the latter is a general monoplaner, the one-piece wing being carried on four vertical struts, forming a slight gap between wing and fuselage. This arrangement was mainly chosen because it is believed that such a gap reduces the slipstream effect on the wing. Another reason is that it has been found difficult to provide, in a ship with a small cabin, sufficient ventilation to prevent air sickness. The main wing also allows to place the pilot's cockpit under the leading edge, thus doing away with the necessity of cutting off the tail.

The fuselage is of oval cross section and is covered with pl. wood. The radial engine is carried in a curved mount which can be swung out by hydraulic bolts, thus allowing for quick inspection and repair. As the instrument and

tools are mounted on the engine, and the pilot's cockpit is right aft of it, the only land must be disconnected when swinging out the engine in the fuselage. The passenger cabin, aft of the cockpit, seats two persons in staggered positions. Behind the cabin there is a small baggage hold. The wing is built of wooden spars and ribs, and is tapered both in



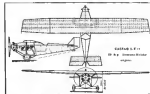
Outline drawings of the Udet three-seater

chord and depth toward the tip. The horizontal stabilizer can be adjusted to permit flight with or without passengers.

The principal specifications are as follows: Span 32 ft. 4 in., overall length 20 ft. 10 in.; wing area 294 sq. ft.; weight empty 1023 lb.; weight loaded 1750 lb.; maximum speed 111 mi./hr. The fuel consumption is said to be about 4 gal./hr.

The Casper Three-Seater

The third of these remarkable "small transport" planes is the Heinkel LEST centerline cabin monoplaner built by the Casper Werke of Travemünde, which was shown at the



Outline drawings of the Casper three-seater

Guthrie Aero Exposition, last summer. This ship carries with a 70 hp. Hispano radial air-cooled engine a pilot, two passengers, 120 lb. of baggage, and 4 hr. fuel at a maximum speed of 102 mi./hr.

Other characteristics are: Span 34 ft. 5 in., overall length 32 ft. 10 in., maximum height 7 ft. 2 in.

Constructively the machine is interesting because of the extensive use made of plywood, the wing, fuselage and tail surfaces all being covered with this material. Steel bracing is employed in heavily stressed members. The wing is built in two sections, is braced on the accompanying outline drawings, and tapers irregularly both in depth and chord. The fuselage is of a curious fish-tailed form, which is probably used to simplify construction. Despite the very singular fuselage a good performance is obtained.

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